

**REMARKS**

This Amendment is filed in response to the Non-Final Office Action mailed June 10, 2003. All objections and rejections are respectfully traversed. Reconsideration and further examination of the application, as amended, are respectfully requested.

Claims 1-3, 9, 11, 12, 15-18, 20, 21, 23, 26, 27, 29-32 and 44-110 are now pending in this case.

Claims 15, 23, 32, 44, 55, 73, 79, 98, 99, 102, 103, 106 and 107 have been amended to better claim the invention.

Claims 62-66 and 80-89 have been allowed.

At paragraph 4 of the **OFFICE ACTION SUMMARY** an indication is provided that claims 29, 58, 100 and 103 are pending, however no indication of the status of those claims is provided on that form. At paragraph 1 of the **DETAILED ACTION** an indication is provided that claim 103 is rejected under 35 U.S.C. §112, ¶1; and, at paragraph 3, an indication is also provided that claims 29, 58 and 100 are rejected under 35 U.S.C. §102(e). In view of the information provided in the **DETAILED ACTION**, Applicant respectfully urges that claims 29, 58, 100 and 103 are pending in this case, as set forth in the **DETAILED ACTION**.

At paragraph 6 of **OFFICE ACTION SUMMARY** an indication is provided that claim 102 is rejected. At paragraph 7 of **OFFICE ACTION SUMMARY** an indication is also provided that the claim is objected to. At paragraph 5 of the **DETAILED ACTION** an indication is provided that claim 102 is objected to as being dependent upon a rejected based claim, but would be allowable if rewritten in independent form. In view of the information provided at paragraph

7 of **OFFICE ACTION SUMMARY** and at paragraph 5 of the **DETAILED ACTION**, Applicant respectfully urges that claim 102 is objected to but subject to allowance if rewritten in independent form, as Applicant has done.

At paragraph 5 of both the **OFFICE ACTION SUMMARY** and the **DETAILED ACTION** an indication is provided that claim 52 is allowed. At paragraph 6, sub-paragraph 2, of the **DETAILED ACTION** an indication is also provided that the allowability of claim 52, along with claims 30 and 78, have been withdrawn in view of the Bellenger reference. However, no explanation has been provided as to why this reference compelled the change in status of these claims. For the reasons set forth herein, however, Applicant respectfully urges that the allowability of claim 52, as well as that of claims 30 and 78, be reinstated.

At paragraph 1 of the Office Action, an indication is provided that claims 23, 32, 44, 73, 99, 103 and 107 are rejected under 35 U.S.C. 112, ¶1, on the grounds that even distribution of the packets by the hash function to the processors is not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention.

At the outset, Applicant respectfully reiterates herein those arguments previously asserted in response to this statement as it was previously set forth by the Examiner as a basis for rejecting these claims in earlier Office Actions. More particularly, Applicant traverses this rejection on the grounds that packets arrive at the router with many different addresses, and the different addresses are hashed, and that the addresses appear substantially random to the router. Hashing packets with randomly arriving addresses leads to a random distribution of the packets to the processing engines, and hence a substantially even distribution of packets to the various processing engines.

Amendment of claims 23, 32, 44, 73, 99, 103 and 107 is believed to satisfy this objection.

At paragraphs 2 and 3 of the Office Action claims 1, 2, 9, 11, 17, 18, 20, 21, 26, 27, 29, 30, 31, 44, 45-51, 53-54, 57-59, 67-72, 74-78, 90, 95-97, 100, 101, 104, 105, 108, 109 and 110 were rejected under 35 U.S.C. §102(e) as being unpatentable in view of Bellenger, U. S. Patent No. 5,802,054 issued on September 1, 1998, hereinafter "Bellenger".

The present invention, as set out in representative claim 1, comprises in part:

1. A router for distributing packets in a network, wherein the packets originate at a source and are routed to a destination, comprising:
  - a plurality of route processing engines located within said router;
  - a mechanism that performs a hashing function on a destination address portion of a network layer in the packets transferred to the routing system, to produce an indicia of a flow and,  
*means for switching packets with a same said indicia of a flow to a single route processing engine of said plurality of route processing engines.*

Bellenger discloses "a route table memory having a set of accessible memory locations that store switch route data specifying routes through the plurality of switch nodes inside the mesh of the network switch for specific flows of data frames, or for data frames having specific destination addresses" (col. 3, lines 2 et seq.). Bellenger has many nodes in his internal network web, and his hash function provides a tag for a route through these internal nodes.

Applicant respectfully urges that the Bellenger patent does not show Applicant's claimed novel *means for switching packets with a same said indicia of a flow to a single route processing engine of said plurality of route processing engines.*

More particularly, whereas Bellenger uses the hash result as a flow identifier to pull a route out of the route table from the internal nodes of the mesh, the hash function of the present invention is used to select the route-processing engine.

Applicant respectfully urges that the Bellenger patent is legally precluded from anticipating the claimed invention under 35 U.S.C. §102 because of the absence from the Bellenger patent of Applicant's *means for switching packets with a same said indicia of a flow to a single route processing engine of said plurality of route processing engines.*

At paragraph 4 of the Office Action, claims 60, 79, and 91-94 were rejected under 35 U.S.C. 103(a) as unpatentable over Bellenger.

As set forth above, Applicant respectfully urges that the Bellenger patent does not show Applicant's claimed novel *switching, in response to said hash result, said packet to a processing engine of a plurality of processing engines in said router, for further processing of said packet*, as set out in lines 6-7 of representative claim 79. Instead, Bellenger uses the hash result as a flow identifier to pull a route out of the route table from the internal nodes of the mesh.

Applicant respectfully urges that the Bellenger patent is legally insufficient to render the presently claimed invention obvious under 35 U.S.C. §103 because of the absence from the Bellenger patent of Applicant's *switching, in response to said hash result, said packet to a processing engine of a plurality of processing engines in said router, for further processing of said packet.*

Also at paragraph 4 of the Office Action, claims 3 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bellenger in view of Varghese et al., U. S. Patent No. 5,905,723 issued on May 18, 1999, hereinafter Varghese.

Applicant notes that claims 3 and 12 are dependent from independent claims which are believed to be in a condition for allowance. Accordingly, Applicant believes that claims 3 and 12 are also in a condition for allowance.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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